DHA

Stock #1513-5 (60 capsules)

Docosahexaenoic acid (DHA), an omega-3 fatty acid is a major component of the human brain. DHA serves as a building block of brain tissue and is the primary structural fatty acid in the gray matter of the brain, as well as in the retina of the eye. Thus, DHA is essential for healthy brain development and mental function and is important for nerve signal transmission in the brain, eyes, and nervous system. Research has also revealed a strong inverse correlation between the levels of DHA in red blood cells and cardiovascular disease, confirming its cardio-protective (heart-protecting) effects. DHA must be obtained either from the diet—cold-water fish such as salmon, mackerel, herring, cod and tunafish is the best source—or from supplements.[1-8]

Recent data show a correlation between low blood levels of DHA and certain behavioral and neurological disorders such as dementia, depression, memory loss, and visual problems. Individuals with major depression have marked depletions in omega-3 fatty acids, especially DHA, compared with healthy controls. Unfortunately, North Americans exhibit some of the lowest brain DHA levels of any population on earth, most likely due to the fact that Americans generally eat less seafood than other cultures. According to a report published in *The Psychiatric Clinics of North America*, the role of DHA as a therapy for minor and subsyndromal depression (depressive symptoms that do not meet criteria for a specific depressive syndrome) should be given consideration.[3,4,8-10]

Decreases in DHA in the brain are also associated with cognitive impairment and/or dementia with aging. In fact, low serum DHA is a significant risk factor for the development of Alzheimer's disease. Studies have confirmed that high DHA consumption is associated with reduced risk for developing Alzheimer's disease. Recent animal research suggests that DHA may help prevent the learning deficiencies of Alzheimer's disease and restore and/or enhance memory-related functions.[6,8,11-14]

Scientists have found that deficient levels of DHA may also be associated with behavioral problems in children, including attention-deficit and/or hyperactivity disorders (ADD/ADHD). DHA is essential for normal functioning of the brain's cerebral cortex, the part of the brain that handles higher intellectual functions such as reasoning and memory. In a recent comparative study of young children, those with ADHD had significantly lower levels of highly unsaturated fatty acids, particularly DHA.[2-4,8,15,16]

In addition, DHA is essential for the growth and functional development of the brain in infants. Significant brain and eye development occurs in the womb and continues during the infant's first year, thus optimal levels of DHA are crucial for both pregnant and breast-feeding women. It is known that a mother's intake of DHA during pregnancy determines the DHA status of the infant at birth and throughout the first several weeks—infants acquire DHA from their mothers either prenatally via the placenta or postnatally (after birth) from breast milk. However, DHA levels in breast milk of American women are among the lowest in the world. Consequently, infants born to mothers in the U.S. stand a good chance of having suboptimal DHA levels. Postnatal deficiencies of DHA have specifically been found to negatively affect visual acuity, neurodevelopment and behavior, including deficits in learning. Even marginal DHA deficiencies can have long-term effects on visual development. In fact, studies have confirmed that neurologically abnormal infants had lower umbilical vein DHA and essential fatty acid status, compared to healthy infants. Fortunately, studies have shown that maternal DHA supplementation significantly increases maternal DHA status, thus aiding the transfer of DHA from mother to child in utero (in the womb). Plus, research shows that infants whose mothers had high DHA levels at birth demonstrate accelerated cognitive development in infancy and toddlerhood.[1,3,4,6,17-22-24]

Furthermore, insufficient dietary intake of DHA can cause pregnant women to become depleted of DHA, which may increase their risk of suffering major depressive symptoms in the postpartum period. Both lower DHA content in breast milk and lower seafood consumption have been associated with higher rates of postpartum depression. In one study, findings indicated that a 1% increase in blood levels of DHA was associated with a 59% reduction in reporting of depressive symptoms in women at 6 months post-partum.[25-27]

Each softgel capsule of DHA provides 250mg of docosahexaenoic acid (DHA) and 50mg of eicosapentaenoic acid (EPA). Natural lemon oil is added to reduce the aftertaste of fish oil.

EPA (eicosapentaenoic acid) is an omega-3 fatty acid and the precursor to DHA. Epidemiologic studies suggest that a higher consumption of EPA and DHA is associated with a reduced risk of cardiovascular disease. Studies also show that EPA inhibits cell proliferation (growth) of various human cancers in vitro.[1,28]

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